

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	Burke et al.	Art Unit:	2891
Serial No.:	10/697,138	Examiner:	Everhart, C.
Filing Date:	10/30/2003	Docket No.:	TI-35260
Customer No.:	23494	Conf. No.:	9761

Title: CAPACITOR INTEGRATION AT TOP-METAL LEVEL WITH A PROTECTIVE
CLADDING FOR COPPER SURFACE PROTECTION

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The following remarks are offered in response to the Examiner's Office Action dated July 15, 2008. They are respectfully submitted as a full and complete response to that Action.

REMARKS

Reconsideration of the above-referenced application in view of the following remarks is respectfully requested.

Claims 1, 3-9, and 11-15 are pending in this case.

The Examiner rejected claims 1, 3-9, and 11-15 under 35 U.S.C. 102(e) as being anticipated by Coolbaugh et al. (U.S. Patent 6,876,028B1).

Applicant respectfully submits that claim 9 is unanticipated by Coolbaugh as there is no disclosure or suggestion in the reference of a topmost metal interconnect level comprising a first and a second metal interconnect line, a decoupling capacitor located over the topmost metal interconnect level, wherein a bottom electrode of the decoupling capacitor is electrically connected to the first metal interconnect line and a cladding on the second metal interconnect line. Coolbaugh teaches a MIM capacitor located between two metal interconnect levels (e.g., 426A and 456A). Coolbaugh does not disclose or suggest a decoupling capacitor located over the topmost metal interconnect level as claimed. Furthermore, Coolbaugh does not disclose or suggest an aluminum cap layer electrically connecting a top electrode of the decoupling capacitor to the second metal interconnect line. No connection between the top electrode and the second metal interconnect line is shown. Accordingly, Applicant respectfully submits that claim 9 and the claims dependent thereon are unanticipated by Coolbaugh.

Applicant respectfully submits that claim 1 is unanticipated by Coolbaugh as there is no disclosure or suggestion in the reference of depositing a material over the top metal interconnect level and patterning and etching that material to form a bottom electrode on the first metal interconnect line and a cladding on the second metal interconnect line. Coolbaugh teaches a capacitor formed between two metal interconnect levels rather than depositing a material over the top metal interconnect level (and etching that material to form a bottom electrode and a cladding). Furthermore, Coolbaugh does not disclose or suggest forming a conductive cap partially over the protective overcoat, the conductive cap electrically connecting the top electrode and the second metal interconnect line. Figure 7F does not illustrate a conductive cap electrically connecting the top electrode and the second metal interconnect line. Accordingly, Applicant respectfully submits that claim 1 and the claims dependent thereon are unanticipated by Coolbaugh.

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 1, 3-9, and 11-15. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the

Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,

/Jacqueline J Garner/

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